



COST ACTION E48
The Limits of Paper Recycling
Working Group 1 and Working Group 2
Minutes of the Plenary Sessions

SSCCP – Stazione Sperimentale Carta Cartoni e Paste per Carta
Piazza Leonardo da Vinci 16, Milano, Italy. 10 -11 May 2006

PARTICIPANTS:

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Elena Bobu (EB), Romania
Lubova Belkova (LB), Latvia
Marianne Bjöklund (MB), Sweden
Angeles Blanco (AB), Spain
Giorgio Capretti (GC), Italy
Alain Cochaux (AC), France
Jocco Dekker (JD), The Netherlands
Graziano Elegir (GE), Italy
Andreas Faul (AF), Germany
Enatta Farotto (EF), Italy
Dan Gavrilesu (DG), Romania
Harald Grossmann (HG), Germany
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Roland McKinney (RK), United Kingdom
Ruben Miranda (RM), Spain
Stanka Nedeva (SN), Bulgaria
Tiina Pajula (TP), Finland
David Powlson (DP), United Kingdom
Massimo Ramunni (MR), Italy
Barry Read (BR), United Kingdom
Jori Ringman (JR), CEPI
Juha Saari (JS), Finland
Daniela Servan (DS), Romania
Bartek Stawicki (BS), Poland
Ivo Valchev (IV), Bulgaria
Jörg Wagner (JW), Germany

	Activities
<p>1. WELCOME TO PARTICIPANTS Giorgio Capretti and Massimo Ramunni welcome all the participants of WG1 and WG2 of the COST Action E48 to SSCCP.</p> <p>JEL thanks the host for the organisation of the meeting and opens the session summarising the main aims of the Action.</p>	
<p>2. ADOPTION OF THE AGENDA The agenda is adopted without amendments.</p>	
<p>3. NEWS FROM COST HG summarises the latest changes of the COST Program:</p> <ul style="list-style-type: none"> • The revised COST structure: the new 9 COST domains. The worry of the unbalance new committee is discussed since only 4 members of the new domain are from the pulp and paper sector, 6 from the wood sector and around 20 from forestry. Therefore, it would be important that the national delegates will invite the experts to officially participate in the meetings. • Call for new COST Actions. HG suggests that participants prepare new proposals and send a copy to him as chairman of the SC until the end of May. • The current COST Scientific Officer. Gunter Siegel and Arne Been will stay until the end of the year. 	
<p>4. DELIVERABLES OF COST ACTION E48 JEL summarises the list of concrete deliverables to be expected from E48.</p> <ul style="list-style-type: none"> • WG Reports (WG leaders) • Summary Report (Steering group) • Technical Scientific Papers (all) • Joint Projects (all) • New COST Action proposals (all) • Posters • Book? 	<p>ALL Comments on deliverables to be sent to JEL during May.</p>
<p>5. PLENARY PRESENTATIONS</p> <ul style="list-style-type: none"> • The competitiveness of paper recycling in Europe. Results of the inquiry. <p>HG and BS summarise preliminary results of the questionnaire carried out within the COST Action E48. This questionnaire aimed at the identification of the parameters influencing the availability and quality of recovered paper in Europe. Social, economical, technical, environmental and legislative issues were considered. A total of 14 questionnaires were received.</p> <p>The presentation reveals that although a lot off efforts have been made the results are still unsatisfying. It is felt that the reason for this is the complexity of the problem as well as due to the lack of explanations necessary to achieve meaningful results.</p> <p>After some discussion it is suggested to further study:</p>	

<ul style="list-style-type: none"> ○ Price/quality ration of RP compared to virgin fibre ○ What is the quality of a RP pulp? Is it the fibre quality, depends on the contaminant content, on their recyclability? ○ The need of up-dating the CEPI paper grade list <p>Improvement of the questionnaire</p> <p><u>Responsibility:</u> It is suggested that a Task Force should be established to further improve and analyse the questionnaire. The following members volunteered to work in the Task Force: HG, EB, BS, JW, AB and RM.</p> <p><u>Procedure of improvement:</u> To improve the questionnaire all members of the Action are invited to send their corresponding suggestions to HG until May 26.</p> <ul style="list-style-type: none"> - The task force will produce a modified (improved) questionnaire -including more comprehensive explanations - which shall be sent to all Action members before the end of June - The members will provide a filled-in questionnaire (one for each country) before 1 September. - Evaluation of the modified questionnaires will again be performed through BS and the task force. - Results will be presented at the next meeting in Zagreb - Each country will briefly present their respective answers to the questionnaire during the next meeting (10 minutes). <p>• Research activities related to the limits of paper recycling in Europe. Results of an inquiry carried out within WG2.</p> <p>FJ presents the main research areas of WG2 defined in the 1st WG meeting and the results of the questionnaires in relation to these areas. 5-7 questionnaires were collected from the 14 contacts.</p> <ul style="list-style-type: none"> - Fibre yield: 9 projects - Fibre cycle: 2 projects - Improving recyclability: 4 projects - Optimisation of recycling lines: 5 projects - Process water cleaning: 12 projects - Rejects treatment and reuse: 7 projects <p>• The Forest Technology Platform and the recycling related issues of its Strategic Research Agenda.</p> <p>On the basis of a presentation of Werner Förster (PTS, Munich), HG presents the actual situation of the FTP, the issues considered in the SRA of the FTP related to the activities of the Action as well as the status of the 7th Framework Program.</p> <p>All information is available at www.forestplatform.org</p>	<p>HG, EB, BS, JW, AB, RM Members of the task force for improving the questionnaire</p> <p>All: Comments conc. questionnaire.: to HG by May 26</p> <p>All countries: Questionnaire presentation at next meeting</p>
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<p>6. WG1 RELATED PRESENTATIONS, Chair: Angeles Blanco</p> <ul style="list-style-type: none">• CEPI study of collection systems in Europe. AF, as chairman of the Task Force on Collection Systems, summarises the results of the detailed analysis of the data facilitated by CEPI and the main discussions of the Task Force meeting hold on 9 May at SSCCP (see minutes of the meeting). The CEPI questionnaire was answered by 15 experts from different countries. These experts were also interviewed by telephone. It is suggested to combine the task force on collection systems and on competitiveness. The cost of disposal will be also correlated with the collection rate. Data will be set by DP. Since environmental consciousness is obviously the main driving force, it is suggested to go into a more detailed analysis.• Paper collection in the Netherlands. BS presents the different collection systems used in the Netherlands and their influence on the quality of the recovered paper. The differences between similar systems with different management procedures according to the conditions of different countries are remarked.• Automatic sorting of recovered paper – technical solutions and their limitations. JW presents the benefits of automatic sorting systems and their influence on the quality of recovered paper. It is observed that for some grade delivers when the company installs automation systems the rejected tracks are less however quality varies according to plant settings and no general conclusions can be established. On the other hand, automatic recovered paper sorting generates in some cases grades not defined by EN 643 (e.g. 1.02+ or 1.11-). Stream sorting and combines recognition modules offer potential for implementing new separation criteria. It is expected that, in Germany, future further improvements of the sorting systems will take place at the paper mill companies.• Modelling paper and board fibre flows in Europe. TP presents the work carried out in collaboration with Ilpo Ervasti on the water wheel model for streams of recovered paper in Europe within the Task Force of modelling fibre flows. This activity is not part of any project; it is an activity of COST carried out by volunteers. There is a lack of data on the collection rate of each paper grade and how these paper grades are divided between the different recovered paper grades. These data could be estimated and then validated with available data from UK, D, Poland and Germany.	
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<p>7. WG2 RELATED PRESENTATIONS, Chair: Francois Julien-Saint-Armand</p> <ul style="list-style-type: none"> • Organic filler research at VTT. JS presents the work carried out in collaboration with different organisations in relation to organic fillers. These filler are optimised for brightness and printability. • Energy reduction by recycled fibre selection and processing. JD presents the results obtained in the Dutch project, at Wageningen University, related to energy reduction by recycled fibre selection and processing. 	
<p>8. RESULT OF THE QUESTIONNAIRE ON ENVIRONMENTAL AWARENESS</p> <p>RM presents the results from the questionnaire on the environmental awareness in different countries. 22 questionnaires have been collected. It is observed that the correlation of the collection rate with the environmental awareness of the different countries, according to the evaluation of the experts, was 0.66, the same than the data obtained by the 4 experts of Task Force. A more detailed analysis of data by grouping them in three categories shows a correlation of 0.99.</p> <p>AF and AB will prepare a presentation based on these data for the next meeting on the new Declaration of Recover Paper and it will be presented by AF.</p> <p>CEPI will also study this data.</p>	
<p>9. SUMMARY OF WG1 DISCUSSIONS Chair: Angeles Blanco</p> <p>AB summarises the objectives of WG 1 according to the MoU and reviews the activities already carried out during the last meetings. Based on these data the future needed activities of the working group 1 are assessed:</p> <ul style="list-style-type: none"> • Collection and sorting systems: <ul style="list-style-type: none"> ○ Both Task Forces on collection and on competitiveness will joint their efforts to combine the available data and to prepare a common report. <ul style="list-style-type: none"> • Improved the questionnaire: e.g. include definitions of the different systems and management activities. • Each country report in Zagreb about their answers (10'). • Template for the presentation: questionnaire. ○ A detailed presentation of the collection and sorting systems in UK, Italy, Finland, France, Bulgaria and Croatia will be prepared for the next WG meeting (15'). • Sustainable use of RP. Further activities: <ul style="list-style-type: none"> ○ Quality: Study of available data in UK ○ New sources of RP: the case of The Netherlands for diapers ○ Missing data: Andreas contact ERPA (European Recovered Paper Association) and FEAD (Fed European waste management) • Quality of recovered paper: <ul style="list-style-type: none"> ○ Parameters for its quantification 	

<ul style="list-style-type: none"> ○ Sensors ○ PhD thesis at UCM <p>Next meetings:</p> <ul style="list-style-type: none"> • Zagreb: WG1 will focus on collection and sorting (3h) and on the quality of RP focused on stickies. <p>The following presentations are suggested for the plenary session of WG 1 and WG2:</p> <ul style="list-style-type: none"> ○ General techniques to predict stickies content ○ The influence of adhesives on recovered paper quality (EB) ○ Assessment on macrostickies method (AF) ○ Different methods to measure microstickies ○ Measurements of microstickies (UCM) <ul style="list-style-type: none"> • Conference in Madrid: potential speakers were defined (see draft program). <p>New COST Actions and projects</p> <ul style="list-style-type: none"> • Chemicals in papermaking – EB/RK <p>Publication-brochure</p> <ul style="list-style-type: none"> • Data from the detailed analysis of CEPI data and the questionnaire on environmental awareness. 	
<p>10 SUMMARY OF WG1 DISCUSSIONS, Chair: Francois Julien-Saint-Armand</p> <p>FJ reviews the MoU and the activities already carried out in the frame of the Action.</p> <p>The future activities will be focussed on:</p> <ul style="list-style-type: none"> • Stickies for the Zagreb meeting: 3 presentations on the removal of stickies in the recycling process. 	
<p>11. DRAFT PROGRAMME OF THE CONFERENCE PLANNED FOR SPRING 2007 IN MADRID</p> <p>The draft program for the spring meeting 2007 in Madrid is:</p> <ul style="list-style-type: none"> • Presentation of COST E48 (10´) • The actual limits of paper recycling (AB) • RP an indispensable raw material for the European paper industry. JR CEPI • The future of RP. Ilpo Ervasti, Jakko Poyri • Quality/Future research activities. Mahendra Doshi? • Collection, HG, Dresden University • Sorting, Stora Enso • Automatic sorting, JW, Darmstadt University • Characterisation of RP quality • Quality sensors (Alain, CTP) • Deinkability (COST E46) • Stickies 	

<ul style="list-style-type: none"> • Optimisation of the process: up-grading (Bruno Carre, BR) • Microbiological contamination in closed systems • Biofillers • WG3 2-3 presentations <ul style="list-style-type: none"> ○ Modelling TP • Questionnaire results <p>It is considered 1.5 days for the conference with 15-16 presentations.</p> <p>There will be WG meetings and a MCM in parallel.</p>	
<p>12. NEW PROJECTS AND ACTIVITIES RELATED TO COST E48</p> <p>HG presents a new project on the best strategies to improve the collection rate of RP in Germany. He will present the results in the conference.</p> <p>HG presents the proposal from Alf Strunz for a new European project on developing alternative methods for improved material recycling and energy recovery of RP. He invites potential partners to contact him.</p> <p>AB presents the new project PROLIPAPEL recently initiated in the Community of Madrid to improve the sustainability of recycled paper manufacturing.</p>	
<p>13. STSM</p> <p>It is proposed that proposals could be accepted at the end of the year.</p>	
<p>14. PRESENTATION OF NEW PARTICIPATING ORGANISATIONS</p> <p>The following new members of E48 presented themselves and their respective organisations:</p> <ul style="list-style-type: none"> • B. Lozo: University of Zagreb, Croatia • S. Adamopolous: Democritu University of Thrace, Greece • D. Serban: Ceprohart, Romania • D. Powlson: WRAP, UK 	
<p>15. AOB</p> <p>No other business was discussed</p>	
<p>16. Place and date of next meeting</p> <p>As has been agreed earlier the next meeting of the WGs and MC will take place on October 26/27 in Zagreb. Further details will be communicated in due time.</p>	
<p>17. CLOSURE</p> <p>Jan Erik Levlin closes the meeting and thanks all the participants for their contributions.</p>	